Amendments to the Claims

The following is a complete listing of the status of all claims that have been pending in this application. Please amend the claims as follows:

1. (Currently Amended) A computer system for managing data exchanges among a plurality of network nodes in a managed packet network, comprising:

a managed packet backbone server (MPBS) disposed to communicate with the plurality of network nodes;

at least one Customer Premises Equipment (CPE) node communicable with the managed packet backbone server (MPBS), wherein said at least one CPE node transmits a registration request to the MPBS comprising a CPE profile; and

at least one Application Service Provider (ASP) node communicable with the managed packet backbone server (MPBS), wherein said at least one ASP node transmits a registration request to the MPBS comprising an ASP profile;

wherein

the managed packet backbone server (MPBS) manages transactions among said at least one Customer Premises Equipment (CPE) node and said at least one Application Service Provider (ASP) node including reserving resources in the managed packet network for communications among said at least one Customer Premises Equipment (CPE) node and said at least one Application Service Provider (ASP) node.

2. – 3. (Cancelled)

4. (Currently Amended) The computer system of claim [[~~3~~]] 44 wherein the managed packet backbone server (MPBS) issues an authentication key to the at least one Customer Premises Equipment (CPE) node it registers.

5. (Currently Amended) The computer system of claim [[~~3~~]] 4 wherein the managed packet backbone server (MPBS) issues an authentication key to the at least one Application Service Provider (ASP) node it registers.

6. – 7. (Cancelled)

8. (Currently Amended) The computer system of claim [[~~6~~]] 5 wherein a request from the at least one Customer Premises Equipment (CPE) node to establish a session with the at least one Application Service Provider (ASP) node is managed by the managed packet backbone server (MPBS).

9. (Currently Amended) The computer system of claim [[~~6~~]] 5 wherein a request from the at least one Customer Premises Equipment (CPE) node to establish a session with another Customer Premises Equipment (CPE) node is managed by the managed packet backbone server (MPBS).

10. (Original) The computer system of claim 8 wherein when the managed packet backbone server (MPBS) receives a request from the at least one Customer Premises Equipment (CPE) node to establish a session with the at least one Application Service Provider (ASP) node, the managed packet backbone server (MPBS):

verifies that the Customer Premises Equipment (CPE) node has a valid authentication key,

sends a session request to the Application Service Provider (ASP) node,

receives a session token from the Application Service Provider (ASP) node, and

sends the session token to the Customer Premises Equipment (CPE) node.

11. (Original) The computer system of claim 10 wherein one of the at least one Customer Premises Equipment (CPE) nodes initiates a session with one of the at least one Application Service Provider (ASP) nodes by sending a session request to one of the at least one Application Service Provider (ASP) nodes including the session token obtained from the managed packet backbone server (MPBS).

12. (Original) The computer system of claim 11 wherein one of the at least one Application Service Provider (ASP) nodes verifies a received session token and establishes a session with one of the at least one Customer Premises Equipment (CPE) nodes if the session token is valid.

13. (Original) The computer system of claim 12 wherein one of the at least one Customer Premises Equipment (CPE) nodes sends a session initiation event message to the managed packet backbone server (MPBS) upon establishment of a session with one of the at least one Application Service Provider (ASP) nodes.

14. (Original) The computer system of claim 13 wherein one of the at least one Customer Premises Equipment (CPE) nodes sends a session termination event message to the managed packet backbone server (MPBS) upon termination of a session with one of the at least one Application Service Provider (ASP) nodes.

15. (Original) The computer system of claim 14 wherein one of the at least one Customer Premises Equipment (CPE) nodes sends data pertaining to the number and type of data packets received during a session with one of the at least one Application Service Provider (ASP) node to the managed packet backbone server

(MPBS).

16. (Original) The computer system of claim 15 wherein the managed packet backbone server (MPBS) calculates a fee based on the data pertaining to the number and type of data packets exchanged in a session.

17. (Original) The computer system of claim 16 wherein the managed packet backbone server (MPBS) bills an account associated with one of the at least one Customer Premises Equipment (CPE) nodes.

18. (Original) The computer system of claim 16 wherein the managed packet backbone server (MPBS) bills an account associated with one of the at least one the Application Service Provider (ASP) nodes for the session.

19. (Currently Amended) A managed packet backbone server (MPBS) for managing data exchanges among a plurality of network nodes in a managed packet network comprising:

a registration component responsive to said plurality of network nodes in the managed packet network, for:

receiving registration requests comprising node profiles from the plurality of network nodes in the managed packet network, wherein said node profiles comprise the bandwidth and network connection types supported by said plurality of network nodes;

~~obtaining and~~ storing said node profiles ~~profile information pertaining to each network node in the managed packet network~~;

providing an authentication key to the plurality of network nodes; ~~each network node in the managed packet network; and~~

a session establishment component responsive to said plurality of network nodes in the managed packet network, for:

receiving a session request message from a first network node in the managed packet network that wishes to establish a session with a second network node in the managed packet network, said session request message including the authentication key associated with the first network node;

verifying the validity of the authentication key associated with the first network node;

sending a session request message to the second network node;

receiving a session token from the second network node;

sending the session token to the first network node,

reserving resources in the managed packet network for communications between the first network node and the second network node; and

managing the transmission of session data as part of an integrated signal comprising a plurality of component multi-media signals to the first network node, wherein said first network node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals; and

~~a session reporting component responsive to said plurality of network nodes, for:~~

~~receiving packet metering data pertaining to the amount and type of data exchanged over the managed packet network during a session between two network nodes; and~~

~~calculating a fee based on the packet metering data~~.

20. (Currently Amended) A Customer Premises Equipment (CPE) node of a

managed packet network comprising:

a registration component responsive to a managed packet network server node, for:

sending a registration request comprising a CPE profile to the managed packet network server node, wherein said CPE profile comprises the bandwidth and network connection types supported by said CPE node;

receiving an authentication key from the managed packet network server node, and

a session establishment component responsive to a server node, for:

sending a session request message to the managed packet network server node, said session request message including the authentication key and the address of a managed packet network node that the Customer Premises Equipment (CPE) node wishes to establish a session with;

receiving a session token from the managed packet network server node, said session token including indication of reserved resources in the managed packet network for communications between the Customer Premises Equipment (CPE) node and the managed packet network node that the Customer Premises Equipment (CPE) node wishes to establish a session with;

sending a session request message to the managed packet network node that the Customer Premises Equipment (CPE) node wishes to establish a session with, said session request message including the session token; and

receiving session data as part of an integrated signal comprising a plurality of component multi-media signals, wherein said CPE node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals

~~a session reporting component responsive to the managed packet network server node, for:~~

~~sending data to the managed packet network server node pertaining to the amount and type of data exchanged over the managed packet backbone network during the session~~.

21. (Currently Amended) An Application Service Provider (ASP) node in a managed packet network comprising:

a registration component responsive to a managed packet network server node, for:

sending a registration request comprising an ASP profile to the managed packet network server node, wherein said ASP profile comprises the bandwidth and network connection types supported by said ASP node; and

receiving an authentication key from the managed packet network server node, and

a session establishment component responsive to the managed packet network server node, for:

sending a session token to the managed packet network server node; and

receiving a session token from the network node that wishes to establish a session, said session token including indication of reserved resources in the managed packet network for communications between the ASP node and the network node that wishes to establish a session; and

transmitting session data as part of an integrated signal comprising a plurality of component multi-media signals to the network node that wishes to establish a session ~~Customer Premises Equipment (CPE) node and the managed packet network node that the Customer Premises Equipment (CPE) node wishes to establish a session with~~.

22. – 23. (Cancelled)

24. (Currently Amended) A computer program product for managing data exchanges among a plurality of network nodes in a managed packet network, the computer program product having a medium with a computer program embodied thereon, the computer program product comprising:

computer program code for receiving registration requests comprising network node profiles from the plurality of network nodes in the managed packet network, wherein said network node profiles comprise the bandwidth and network connection types supported by said plurality of network nodes;

computer program code for ~~obtaining and~~ storing profile information pertaining to the plurality of network nodes ~~each network node~~ in the managed packet network;

computer program code for providing an authentication key to each network node in the managed packet network;

computer program code for receiving a session request message from a first network node in the managed packet network that wishes to establish a session with a second network node in the managed packet network, said session request message including the first network node's authentication key;

computer program code for verifying the validity of the first network node's authentication key;

computer program code for sending a session request message to the second network node;

computer program code for receiving a session token from the second network node;

computer program code for reserving resources in the managed packet network for establishing communication between the first network node and the second network node corresponding to the capabilities of the first network node and

the second network node;

computer program code for sending the session token to the first network node;

computer program code for transmitting session data as part of an integrated signal comprising a plurality of component multi-media signals from the second network node to the first network node, wherein said first network node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals ~~computer program code for receiving packet metering data pertaining to the amount and type of data exchanged over the managed packet backbone network during a session between two network nodes; and~~

~~computer program code for calculating a fee using the packet metering data~~.

25. (Currently Amended) A computer program product for exchanging data among a plurality of network nodes in a managed packet network, the computer program product having a medium with a computer program embodied thereon, the computer program product comprising:

computer program code for sending a registration request comprising a first network node profile from a first network node in the managed packet network to a managed packet network server node, wherein said network node profile comprises the bandwidth and network connection types supported by the first network node; ~~and~~

computer program code for receiving in the first network node an authentication key from the managed packet network server node;

computer program code for sending a session request message from the first network node to the managed packet network server node, said session request message including the authentication key and the address of a second network node

in the managed packet network that the first network node wishes to establish a session with;

computer program code for receiving in the first network node a session token from the managed packet network server node;

computer program code for sending a session request message from the first network node to the second network node, said session request message including the session token;

computer program code for sending, from the first network node, data to the managed packet network server for reserving resources in the managed packet network for establishing communication between the first network node and the second network node corresponding to the capabilities of the first network node and the second network node; ~~and~~

computer program code for sending, from the first network node, data to the managed packet network server pertaining to the amount and type of data exchanged over the managed packet backbone network during the session; and

computer program code for receiving, from the second network node, session data as part of an integrated signal comprising a plurality of component multi-media signals from the second network node to the first network node, wherein said first network node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals.

26. (Currently Amended) A computer program product for exchanging data among a plurality of network nodes in a managed packet network, the computer program product having a medium with a computer program embodied thereon, the computer program product comprising:

computer program code for sending a registration request to a server node in

a managed packet network;

computer program code for receiving an authentication key from the server node;

computer program code for sending a session token to the server node;

computer program code for receiving a session token from a network node in the managed packet network that wishes to establish a session; and

computer program code for reserving resources in the managed packet network for establishing communication for the network node in the managed packet network that wishes to establish a session; and

computer program code for receiving, from the second network node, session data as part of an integrated signal comprising a plurality of component multi-media signals from the second network node to the first network node, wherein said first network node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals.

27. (Currently Amended) A method of managing data exchanges among a plurality of network nodes in a managed packet network comprising:

~~registering network nodes connected to the managed packet network~~receiving registration requests comprising network node profiles from the plurality of network nodes in the managed packet network, wherein said network node profiles comprise the bandwidth and network connection types supported by the plurality of network nodes;

maintaining network node profiles for the plurality of ~~profile information pertaining to the~~ network nodes connected to the managed packet network;

providing an authentication key to the plurality of network nodes connected to the managed packet network;

receiving session request messages from network nodes connected to the managed packet network that wish to establish sessions with other network nodes connected to the managed packet network; ~~and~~

responding to session request messages from network nodes connected to the managed packet network that wish to establish sessions with other network nodes by establishing sessions between network nodes connected to the managed packet network that wish to establish sessions with other network nodes and reserving resources in the managed packet network for the session between the network nodes; and

managing the transmission of session data as part of an integrated signal comprising a plurality of component multi-media signals between network nodes connected to the managed packet network that wish to establish sessions with other network nodes.

28. (Previously Amended) The method of claim 27 further comprising:

receiving packet metering data pertaining to the amount and type of data exchanged over the managed packet network during a session between two network nodes connected to the managed packet network; and

calculating a fee using the packet metering data.

29. (Currently Amended) A method of exchanging data between network nodes in a managed packet network comprising:

sending a registration request comprising a network node profile to a managed packet network server node, wherein said network node profile comprises the bandwidth and network connection types supported by the network node; ~~and~~

receiving an authentication key from the managed packet network server node;

sending a session request message to the managed packet network server

node, said session request message including the authentication key and the address of a network node connected to the managed packet network;

receiving a session token from the managed packet network server node;

sending a session request message, said session request message including the session token; ~~and~~

reserving resources in the managed packet network for the session between the network nodes;

receiving session data as part of an integrated signal comprising a plurality of component multi-media signals; and

processing and distributing the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals.

30. (Previously Amended) The method of claim 29 further comprising:

sending data to the managed packet network server node pertaining to the amount and type of data exchanged over the managed packet network during the session.

31. – 39. (Cancelled)

40. (Newly Added) The computer system of claim 1, wherein said CPE profile comprises the bandwidth and network connection types supported by the CPE node and said ASP profile comprises the bandwidth and network connection types supported by the ASP node.

41. (Newly Added) The computer system of claim 40, wherein said CPE profile further comprises applications resident on the CPE node and features supported by the CPE node, and wherein said ASP profile further comprises applications resident

on the ASP node and features supported by the ASP node.

42. (Newly Added) The computer system of claim 41, wherein said CPE profile and said ASP profile further comprises account information that distinctly identifies the respective at least one CPE node and the at least one ASP node.

43. (Newly Added) The computer system of claim 42, wherein said CPE node receives an integrated signal comprising a plurality of component multi-media signals, and wherein said CPE node processes and distributes the plurality of component multi-media signals to respective user interfaces that make use of said component multimedia signals.

44. (Newly Added) The computer system of claim 43, wherein said MPBS communicates with said CPE node and said ASP node using a managed packet network protocol, said managed packet network protocol comprising a mechanism for registration, authentication and security (RAS), a mechanism providing billing service, and a mechanism providing route discovery and advertisement.

45. (Newly Added) The MPBS of claim 19, further comprising a session reporting component responsive to said plurality of network nodes, for:

receiving packet metering data pertaining to the amount and type of data exchanged over the managed packet network during a session between two network nodes; and

calculating a fee based on the packet metering data.

46. (Newly Added) The CPE node of claim 20, further comprising a session reporting component responsive to the managed packet network server node, for:

sending data to the managed packet network server node pertaining to the amount and type of data exchanged over the managed packet backbone network during the session.